



US Broker-Dealer Regulatory Reporting

2020 & Beyond





MODERATOR

Venu Palaparathi

Managing Director | **DASH Regulatory Technologies**

Venu Palaparathi is responsible for the management of **DASH Regulatory Technologies**, focusing on innovation, delivery, support, business development, recruitment and strategy.

FORMERLY



CCO | Virtu Financial



Vice President **Nasdaq** (2011 – 2014)



CCO | Instinet



International Advisor to the **Shanghai Gold Exchange**



SEC Equity Market Structure Advisory Committee
Subcommittee on Market Quality.



Distinguished Fellow at the Center for Financial Markets and Policy **Georgetown University**.

GEORGETOWN UNIVERSITY



Dual degrees in Economics and Computer Science
Birla Institute of Technology and Science, Pilani
MBA | University of Texas in Arlington





Zachary Zweihorn

Partner | **Davis Polk & Wardwell LLP**

Mr. Zweihorn is a partner in Davis Polk's Financial Institutions Group and the trading and markets practice, practicing in the Washington DC office.

His practice focuses on the regulation of broker-dealers and other securities market participants and intermediaries, including advising on SEC, FINRA and securities exchange rules relating to the conduct of business, financial responsibility, margin, market structure and related compliance obligations.

He also advises clients on regulatory matters in connection with mergers and acquisitions, capital markets and finance transactions involving broker-dealers and securities exchanges, including obtaining regulatory approvals where necessary.

His clients include major international banks, broker-dealers, securities exchanges, digital asset and blockchain businesses, and other financial institutions. He also helps clients to advocate in connection with regulatory and legislative proposals and has assisted clients in drafting proposed language for legislation, including aspects of three bills that have become law.





Ann Cheeseman

Partner | **EY**

Ann Cheeseman is a Partner in the Financial Services Office Financial Accounting Advisory Services (FAAS) practice of the EY.

Ann leads the firm's national regulatory broker/dealer and futures commission merchant (FCM) non audit offerings. She has over 30 years of experience in financial services working in both external audit, internal audit and other advisory roles.

Ann helps organizations address technical accounting and financial regulatory issues holistically. Areas of functional focus include broker/dealer and FCM financial regulatory reporting and US GAAP/IFRS/SEC technical accounting and reporting. Ann has led projects assisting clients in assessing regulatory and accounting compliance, remediating gaps identified with sustainable leading practices and documenting policies and procedures for ongoing training.

Ann also has broad governance and control knowledge from her experiences, including participating in PCAOB audit inspections of her public audit clients, leading controls projects such as documenting and testing SOX 404 / SEC Rule 17a-5 controls and service organization control report (SOC1) engagements.





Marvin Griffith CPA, CGMA, FINOP, MBA
Principal Financial Officer | **CIBC World Markets Corp.**

Marvin Griffith CPA, CGMA, MBA has over 30 years of professional experience in the securities industry, and is the Principal Financial Officer of CIBC World Markets Corp. (CIBCWMC).

Marvin and has extensive experience in all aspects of accounting, auditing, financial management, securities trading, securities financing and securities regulation, and is an expert in US GAAP financial reporting, sox controls, corporate real estate, risk management, underwriting, investment advisory, mergers, acquisitions, divestitures, prime brokerage and broker-dealer regulatory reporting.

Marvin holds a BS in Accounting from Rutgers University and an MBA in Finance from Purdue University Global, he is a Certified Public Accountant (CPA), Chartered Global Management Accountant (CGMA), a member of the Association of International Certified Professional Accountants (AICPA), the New York State Society of Certified Public Accountants (NYSSCPA), and the Security Industry Financial Management Association (SIFMA).

In addition, Marvin gives back to society by serving as the Board Chairman of Harlem United a nonprofit organization based in New York that provides healthcare, housing and human services to underserved communities.





Colleen Doherty Hickey

Group Treasurer , CFO Broker Dealer | **Jump Trading**

Colleen serves as the Firm's Fin Op and CFO of the Broker Dealer, Jump Trading LLC.

Colleen began her career at Citadel in 2002 and worked throughout numerous Treasury functions over the course of the next 10 years, including Portfolio Finance, Emerging Markets Execution and Cash Management.

In 2013, Colleen left Citadel to establish the Treasurer role at Jump Trading and she has since gone on to expand the Treasury function and responsibilities within the firm up to this day.

Colleen is a graduate in Accounting & Finance from Villanova University and an MBS from the University of Chicago.



THE PANEL

AICPA & SIFMA FMS Conference, Oct 2020



Marvin Griffith

Principal Financial Officer | **CIBC**



Colleen Doherty Hickey

Group Treasurer, CFO (BD) | **Jump Trading**



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Managing Director | **DASH Regulatory Technologies**



Ann Cheeseman

Partner | **EY**



Zachary Zweihorn

Partner | **Davis Polk & Wardwell**

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Security Based Swaps



Security Based Swaps

COMPLIANCE TIMING UPDATE

The SEC has published the following timeline:



JUNE 21 2019

The SEC adopted security-based swap (SBS) capital (as well as margin and segregation) requirements for SBS dealers (SBSDs) and revised the capital requirements for broker-dealers that are not SBSDs, to the extent they engage in SBS activities. They also increased the minimum capital requirements for broker-dealers authorized to use internal models to compute net capital (ANC Broker-Dealers).



APRIL 6 2020

Effective date for cross-border security-based swap rule amendments.



AUG 6 2021

Counting date for thresholds in SBS entity definitions (referred to as “the counting date”).



OCT 6 2021

Compliance date for certain rules applicable to SBS entities (referred to as the “registration compliance date”).



NOV 1 2021

Registration applications due from security-based swap dealers that incur a registration obligation on the counting date.



DEC 1 2021

Registration applications due from major security-based swap participants that incur a registration obligation as a result of security-based swap activities in the Qtr ending Sept 30, 2021.

The “counting date” is the date beginning on which firms need to begin counting their SBS dealing activity against the de minimis thresholds (\$8B notional for CDS, \$400M notional for other SBS, \$25M notional for SBS with “special entities,” each over the prior 12-month period.



VII

The SEC Rules are a key final rule in the suite of capital rules under **Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act** (Title VII).

2015

The **U.S. Prudential Regulators** - the Board of Governors of the Federal Reserve System, Office of the Comptroller of the Currency, Federal Deposit Insurance Corporation, Farm Credit Administration and Federal Housing Finance Agency—finalized their uncleared swap capital rules (**the PR Rules**) in 2015.

10.6.21

The **CFTC adopted final swap dealer capital rules (CFTC Rules)** for non-prudentially regulated swap dealers in July 2020, compliance with which is required by October 6, 2021.

Rules	Covered entities
PR Rules	Bank SBSs and bank SDs
CFTC Rules	Non-bank SDs
SEC Rules	Non-bank SBSs, including Broker-Dealer SBSs Non-SBSD broker-dealers with respect to SBS and swaps

Note: The SEC Rules’ capital requirements impose general capital requirements for Stand-Alone SBSs, not only for their SBS activities, and create capital charges for broker-dealers, including Broker-Dealer SBSs, for swaps as well as SBS.



Registration

The application of the SEC Rules to an SBSB or broker-dealer will depend on the entity's registration status with the SEC and CFTC.

Alternative Compliance Mechanism

In addition, a dual-registered SBSB/SD may comply with **only the CFTC's capital requirements** (including for its SBS activities) - in lieu of complying with the SEC Rules - if the entity's business is predominantly swap dealing and the SBSB/SD meets certain other requirements.



NON-SBSBs

ANC Broker-Dealers

Broker-dealers authorized to use internal models to compute net capital

Non-ANC Broker-Dealers

Broker-dealers that are not ANC Broker-Dealers



SBSBs

Stand-Alone SBSBs

SBSBs that are not full broker-dealers (including SBSBs registered as OTC derivatives dealers)

ANC Broker-Dealer SBSBs

Entities that are both ANC Broker-Dealers and SBSBs

Non-ANC Broker-Dealer SBSBs

Entities that are both Non-ANC Broker-Dealers and SBSBs



NET CAP

The SEC Rules establish capital requirements for SBSDs that generally parallel existing capital requirements for broker-dealers.

This means that SBSDs, like broker-dealers, must maintain **net capital** in excess of the applicable minimum net capital requirement, and SBSDs that are approved to use internal models are also subject to minimum tentative net capital requirements.

REQUIREMENTS

The net capital requirements for SBSDs vary based on whether the **SBSD is also registered as a broker-dealer** and whether it has been **approved by the SEC** to use internal models to calculate net capital.

MODIFICATIONS

The SEC Rules also modify certain existing capital requirements applicable to broker-dealers, including by:

- **Raising minimum net capital requirements** applicable to Specifically, ANC Broker-Dealers will be required to hold at least \$1 billion of net capital (up from \$500 million) and \$5 billion of **tentative net capital** (up from \$1 billion) and must provide an early warning notification if their tentative net capital falls below \$6 billion (up from \$5 billion); and
- **Establishing new standardized haircuts and other deductions** for SBS and swaps for all broker-dealers.

TENTATIVE NET CAP

Tentative net capital is the amount of a firm's net capital before deducting standardized haircuts or, in the case of firms that use models, market and credit risk charges, to the value of proprietary positions.



Security Based Swaps

MINIMUM NET CAPITAL REQUIREMENTS FOR SBSDS & ANC BROKER-DEALERS

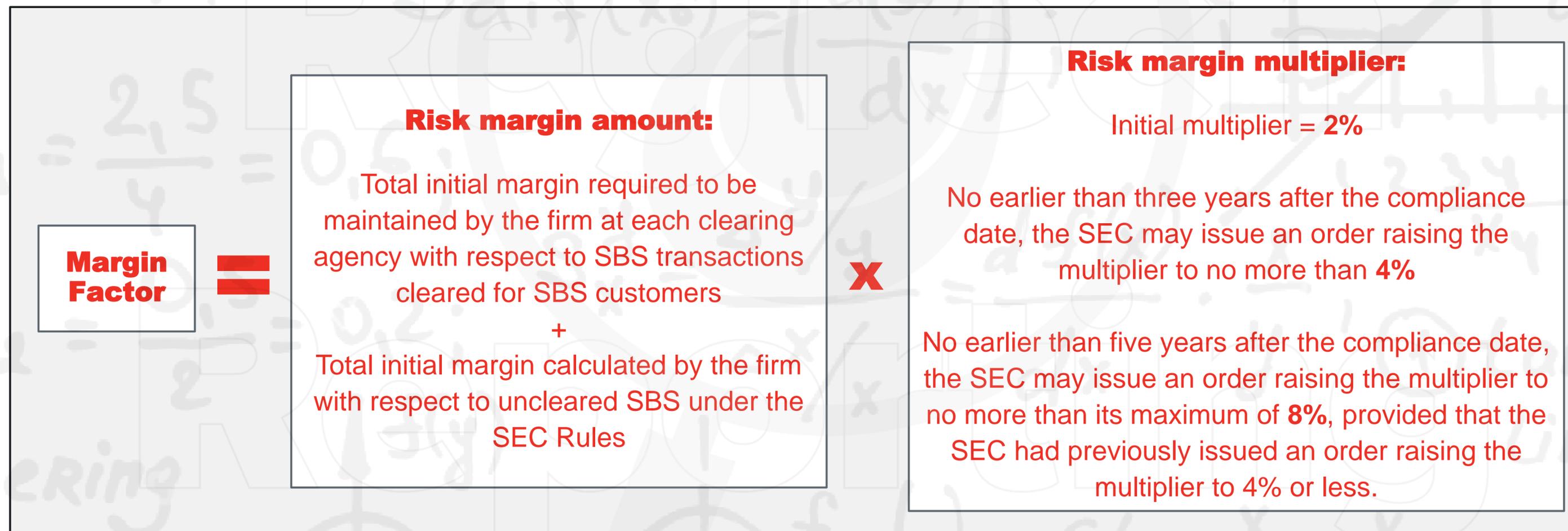
The table sets forth the minimum tentative and net capital requirements under each Securities Exchange Act of 1934 (Exchange Act) rule based on the type of SBS or Broker-Dealer.

Securities Exchange Act of 1934

REGISTRANT	Exchange Act Rule	18a-1	18a-1	15c3-1	15c3-1	15c3-1
	Tentative Net Capital	N/A	\$100 million	N/A	\$5 billion	N/A
	Net Capital (max: floor / ratio)					
	Floor	\$20 million	\$20 million	\$20 million	\$1 billion	\$250,000*
	Ratio	Margin Factor	Margin Factor	Margin Factor + 15c3-1 Ratio	Margin Factor + 15c3-1 Ratio	15c3-1 Ratio
	Stand-Alone SBSDs (not using internal models)		Stand-Alone SBSDs (using internal models), including OTCDD SBSDs	Non-ANC Broker-Dealer SBSDs	ANC Broker-Dealers & ANC Broker-Dealer SBSDs	Non-ANC Broker-Dealer SBSDs

An SBS's minimum net capital requirement is equal to the greater of (i) the applicable fixed-dollar amount and (ii) the **Margin Factor**, or, in the case of SBSs that are broker-dealers, the **15c3-1 Ratio** *plus* the Margin Factor.

The **Margin Factor**, which generally represents a firm's exposures to its SBS customers, is equal to its **risk margin amount** multiplied by the then-applicable **risk margin multiplier**.



The **15c3-1 Ratio**, which is applicable only to SBSs that are broker-dealers, is the existing ratio-based minimum net capital requirement in the broker-dealer net capital rule (Exchange Act Rule 15c3-1) (i.e., either 15-times aggregate indebtedness or 2% of customer debit items).

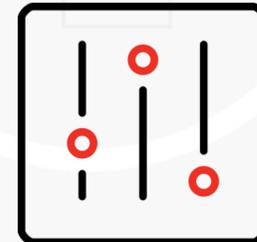


The SEC rules establish **new requirements for how Stand-Alone SBSDs calculate net capital** that are largely based on the existing requirements for how broker-dealers calculate their net capital.

In addition, the SEC Rules modify the existing broker-dealer net capital calculation requirements by adding adjustments to account for SBS and swap positions.



Start with net worth: The first input into the net capital calculation is the firm's net worth under U.S. generally accepted accounting principles.



Next make adjustments: That net worth is modified by specific deductions or haircuts with the purpose of leaving the firm with each dollar of its unsubordinated liabilities being matched by more than one dollar of highly liquid assets.

The adjustments applicable to **Stand-Alone SBSDs** in Exchange Act Rule 18a-1 are generally consistent with the adjustments applicable to broker-dealers in Exchange Act Rule 15c3-1, as amended by the SEC Rules.



Firms that are not approved to use internal models to calculate haircuts on SBS and swap positions, must calculate deductions to net worth based on standardized haircuts:

Uncleared interest rate swaps

A percentage of the notional amount that would be applicable to a U.S. government security of the same maturity under Exchange Act Rule 15c3-1, provided that the percentage deduction must be no less than 1/8 of 1% of the amount of the long position that is netted against the short position in the case of an uncleared swap with a maturity of three months or more.

All other uncleared swaps and SBS

A percentage of the notional amount that would be applicable to the reference asset under Exchange Act Rule 15c3-1.

If Exchange Act Rule 15c3-1 does not specify a percentage deduction for the reference asset, the percentage deduction applicable in CFTC Rule 1.17, if any, applies.

Cleared Swaps and SBS

The amount of the applicable margin requirement of the clearing agency or DCO where the SBS or swap is cleared.

If the SBS references an equity security or a narrow-based security index, or the swap references a broad-based equity security index, the firm may take the deduction using the method specified in Appendix A to each of Exchange Act Rule 15c3-1 and 18a-1, as applicable.

Uncleared SBS that are CDS Swaps that are CDS referencing broad-based security indices

A percentage of the notional amount of the CDS determined based on the current basis point spread of the CDS and the maturity of the CDS. For short positions, this haircut is a percentage of the notional amount, as set forth in a table, varying based on the current basis point spread of the CDS and its maturity. For long positions, the haircut is 50% of the amounts set forth in the table for short positions, except that the deduction may not exceed the current market value of the long position.

Reduced haircuts may be available for certain offsetting long and short CDS positions and certain long CDS positions where the firm is long the reference asset(s) or short CDS positions where the firm is short the reference asset(s).

The SEC Rules require several other adjustments to net worth for calculating net capital, including but not limited to:

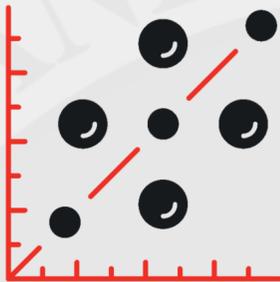
Deduction for posting initial margin

Broker-dealers and SBSDs are generally required to take a deduction from net worth for initial margin posted to a counterparty. **The SEC provided interpretive guidance** that a firm may avoid deducting initial margin posted by the firm if:

- the initial margin requirement is funded by a fully executed written loan agreement with an affiliate of the firm; repayment of the loan until the initial margin is returned to the firm; and
- the loan agreement provides that the lender waives by repayment of the loan until the initial margin is returned to the firm; and
- the liability of the firm to the lender can be fully satisfied by delivering the collateral serving as initial margin to the lender.



Uncleared SBS that are CDS / Swaps that are CDS referencing broad-based security indices



A percentage of the notional amount of the CDS determined based on the current basis point spread of the CDS and the maturity of the CDS. For short positions, this haircut is a percentage of the notional amount, as set forth in a table, varying based on the current basis point spread of the CDS and its maturity. For long positions, the haircut is 50% of the amounts set forth in the table for short positions, except that the deduction may not exceed the current market value of the long position.

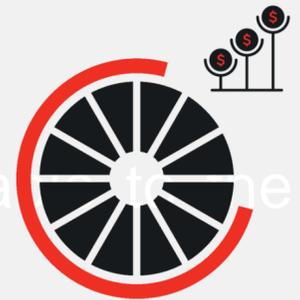
Reduced haircuts may be available for certain offsetting long and short CDS positions and certain long CDS positions where the firm is long the reference asset(s) or short CDS positions where the firm is short the reference asset(s).

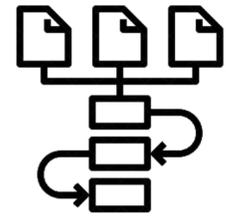
Uncleared interest rate swaps

A percentage of the notional amount that would be applicable to a U.S. government security of the same maturity under Exchange Act Rule 15c3-1, provided that the percentage deduction must be no less than 1/8 of 1% of the amount of the long position that is netted against the short position in the case of an uncleared swap with a maturity of three months or more.

All other uncleared swaps and SBS

A percentage of the notional amount that would be applicable to the reference asset under Exchange Act Rule 15c3-1. If Exchange Act Rule 15c3-1 does not specify a percentage deduction for the reference asset, the percentage deduction applicable in CFTC Rule 1.17, if any, applies.





Architectural Considerations

Numerous choices or regimes - prudential, SEC, CFTC and substituted compliance regimes.

Potential SEC+CFTC dual registration, which then leads to the alternate compliance option.



Gap Analysis

Stand-alone SBSDs: Need to conform with SEC's net capital standards, record keeping, reporting, internal controls.

ANC/Non-ANC broker-dealers: Incremental effort centered on capital, segregation and record keeping.

Additional considerations for broker-dealer FCMs.



Regulatory Clarity

Regulatory approvals for substituted compliance and model approvals may be needed.

The SEC has acknowledged that differences need to be resolved with CFTC regarding portfolio margining.

FINRA rulemaking needed with respect to Rule 4100 series and 4210.



DASH 360R

Initial development completed based on proposed rule. Now being modified to reflect final rule.

Q1-2021 demo version with final version around start of Q3 2021.

SOC certification during next cycle.





COVID Environment



EQUITY

ADV: 11.1 Billion Shares

UP 56% YoY

- Powered by **retail** investors who went from 10% of volume to 20-25% of volume
- Big trends: **Zero commissions**, app-based access removed friction, stay at home

OPTIONS

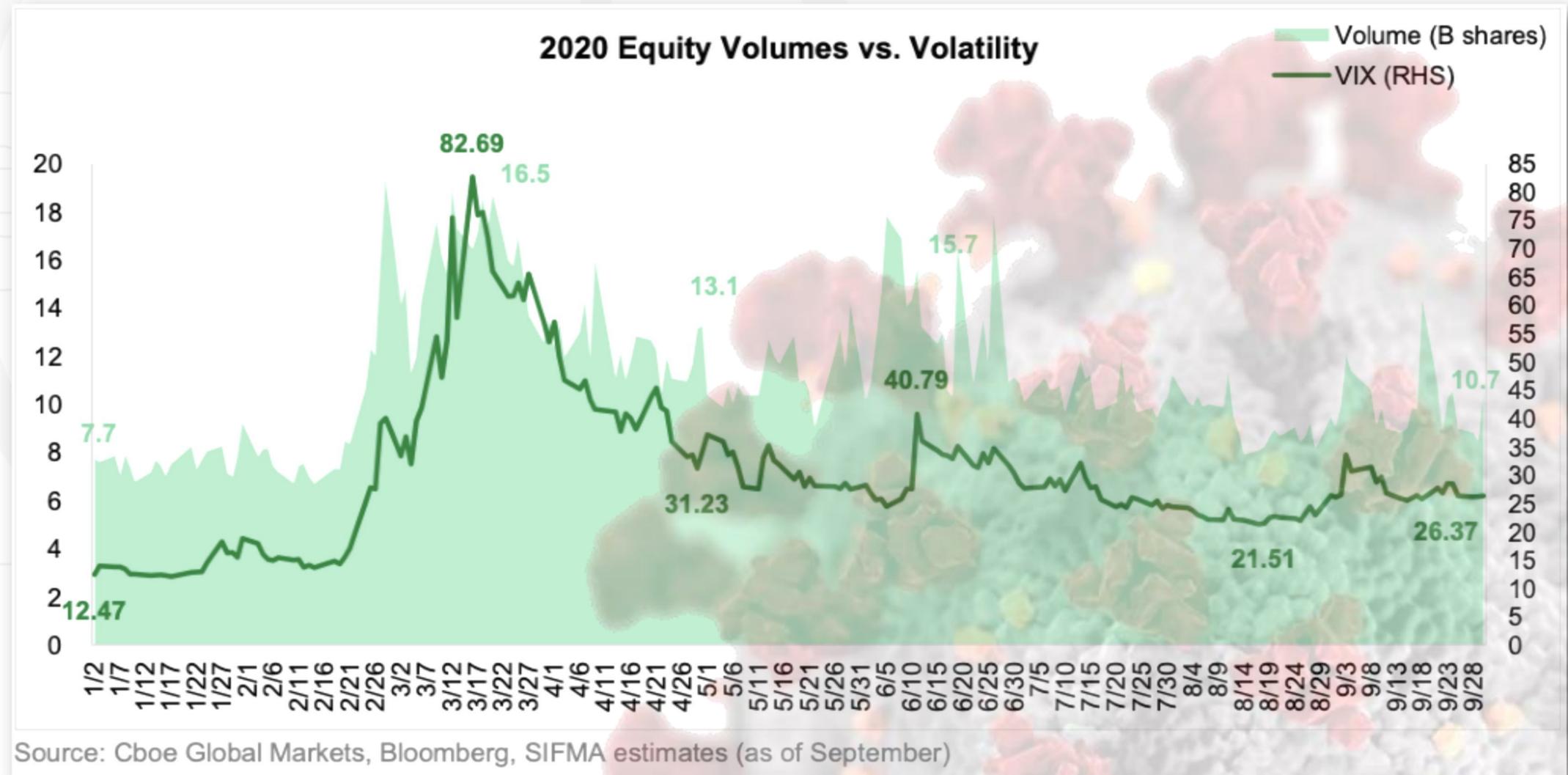
ADV: 28.1M contracts

UP 48% YoY

- Once again, retail investors fueled growth in single stock options

- Aided by **FAANG** names getting pricey

VIX: YTD UP 92% YoY; peak of 82.69



NET CAPITAL IS REAL TIME

Compliance to moment-to-moment regulatory capital required during both quiet and tumultuous times

ROBUST PROCESS IS KEY

For a broker-dealer, it is critical to be focused on robust intraday monitoring and T+1 reporting for full visibility into capital and liquidity

KEEP A PULSE ON LIQUIDITY

During times of extreme volatility, it is important to keep a pulse on liquidity management at all times and for all potential scenarios

MAINTAINING STABILITY

As a liquidity provider, it is critical to provide stability to the marketplace during these tumultuous times

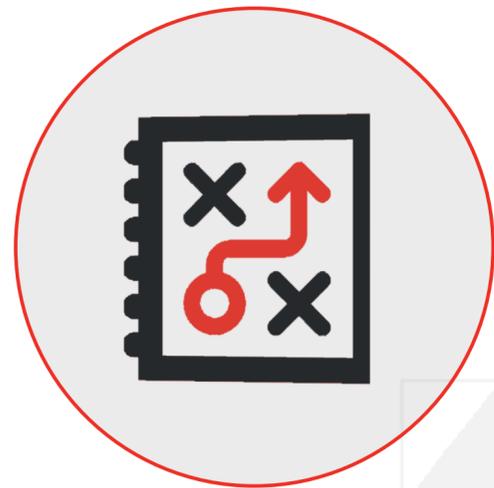
- Maintaining liquidity in the market is a key part of global markets functioning properly - added value on being able to operate successfully and with **sufficient liquidity and capital cushions** during these times
- Actions in the marketplace that will impact liquidity are not within immediate control
(Eg. High probability that **clearing houses margins can experience material changes** to ensure that their margins are representative of the volatility and risk in the market place)



- 🔍 Since 2012, DRT has been providing intraday computation capability for its Risk Based Haircut (RBH) and Risk Based Margin (RBM) modules
- 🔍 Our intraday proprietary theoretical model **closely follows OCC methodology**
- 🔍 Uses **two volatility methodologies** that provide flat or dynamic volatility curves based on the intraday movement of the underlying assets
- 🔍 Enhancements to our theoretical model for major indices **incorporates both monthly and weekly option series** to further align our computations with real-time market pricing
- 🔍 **Continual internal testing** to ensure intraday performance



OPERATIONAL CHALLENGES



Rapid Execution of **BCP** Plans



Enhanced Regulatory Scrutiny

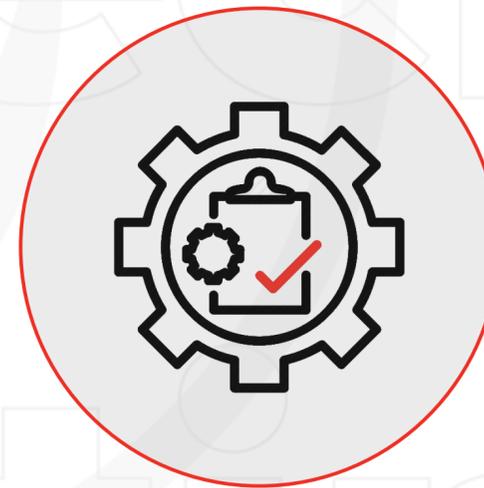


Challenges of Working Remotely

Upgrading existing hardware technologies

Virtual communication: Slack, Zoom, Teams, etc.

LESSONS LEARNT & FUTURE OPERATIONAL EFFICIENCIES



Reprioritize Technology Projects

Emphasize automation of processes



Hybrid Work Model

Enablement of 'Work from Anywhere' economy





DASH 360R is the SaaS version of DASH's industry-leading LDB platform for U.S. regulatory capital calculation

DASH 360R platform **includes all legacy LDB modules:** Risk Based Haircut (RBH), Risk Based Margin (RBM), Fixed Income Haircut (FIH), Repurchase/Reverse Repo (RRR), Stock Borrow/Loan (SBL), Stock Allocation Engine (SAL), Option Margin Optimizer (OMO) and Supplementary Inventory Schedule (SIS)

Key features include:

SOC 1 Type 2 certification (expected 2020)

Streamlined Automation: Enables users to run numerous computations and **parallel optimizations.**

Collaboration Environment: Allows users to **securely access multiple configurations anytime, anywhere.**

Enhanced dashboard visualization and analytics (expected Dec 2020)



Enhancement to Regulatory Reporting



OVERVIEW



Firms are continuing to be under heightened regulatory expectations and now under stressed COVID market conditions.

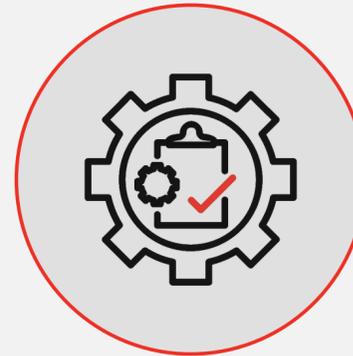


Resolving data sourcing issues, ensuring data integrity and quality, including robustness are key themes for broker-dealers.

CHALLENGES

Per **EY 2018 survey**, a continued reliance on manual processes.

Automation is now more important than ever.



The digitalization of broker dealer accounting is not easy given the complex rules and various data dependencies.

Some firms have inherited bolt-on automation from various acquisitions without the time to optimize solutions.

SOLUTIONS



Implement best in class tools across the process for best results

Focus on static and dynamic data, especially from bank owned broker dealers.

Good governance and training as a key differentiator.



Systems and Organization Controls (SOC) provides critical insight into the operations of a service provider

- Ensures proper security controls in place concerning data storage and confidentiality
- Assesses general business processes and effectiveness of IT computer controls
- DASH 360R will be validated across 59 different scenarios as part of the SOC process
- DASH 360R - RBH is SOC 1 Type 1 Certified; SOC1 Type 2 (expected Dec 2020)
- All 8 modules in DASH 360R expected to be SOC 1 Type 2 certified by end of 2020

Benefits of SOC Certification in Regulatory Reporting

- Offers a cohesive, repeatable, flexible and customized reporting process
- Increases trust and transparency for both internal stakeholders (FINOPs and management) and external stakeholders (auditors and regulators)
- Reduces compliance costs and time spent on audits, including filling out 3rd party vendor questionnaires
- Ensures objective and comprehensive evaluation of the effectiveness of controls that address compliance, operations, and financial reporting of a service organization





Securities Based Swaps

Leveraging DRT's current FIH system, the SBS configuration enables swap and synthetic bond hedging to offset haircuts in accordance with the maturity matrix per SEC 15c3-1 ruleset.

Products will include CDS, CDS indices, IRS and other security-based swaps.



FOCUS GENERATOR

Automated tool (enabled within DASH 360R) that pre-populates existing DASH outputs into the eFOCUS submission format with an option for a thorough review and edits prior to final submission.

Stabilized holistic controlled process that can be maximized to your benefit via automation, managing accuracy and completeness of data at the source.



CME SPAN Calculator

Enabled within RBH, a unified position input file spanning OCC and CME future products arrives at haircut and margin calculations in one calculation instance.

Combining OCC & CME computation methodologies invaluable in ensuring the haircut computation is more efficient and potentially more accurate.



WORM

('Write Once Read Many') Compliance housed within the powerful DASH 360R, our simple-to-use cloud interface streamlines records retention while solving the complexity of the IT efforts needed to achieve this.

Client benefits include Logical Security, Secure Data Handling, Data Integrity, Data Redundancy and Lifecycle Policy.



Contact us:

sales@dashregtech.com

The Gold Standard solution for US regulatory capital compliance.

